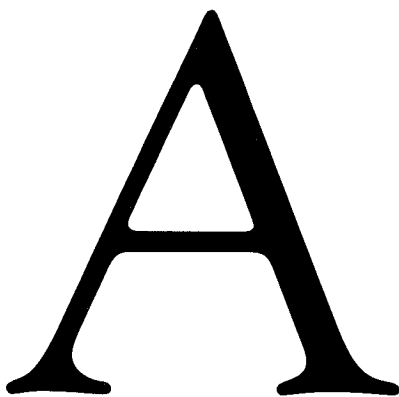


BELIEFS AND PRACTICES OF ITINERANT TEACHERS OF DEAF AND HARD OF HEARING CHILDREN CONCERNING LITERACY DEVELOPMENT



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QUALITATIVE CASE STUDY examined beliefs and practices of itinerant teachers of deaf and hard of hearing students concerning literacy development, the match between these teachers' beliefs and practices, and the impact of itinerant settings. Five itinerant teachers and 15 students participated. Hearing losses were mild to profound. The research addressed 5 areas: sociocultural aspects of literacy development; effects of hearing loss on literacy development; beliefs about teaching and literacy development; practices used to develop literacy; the impact of itinerant settings on literacy development of deaf and hard of hearing learners. Five themes emerged from the data: Itinerant teachers used a variety of practices to develop literacy; itinerant teachers played a supporting role in developing literacy; most of the teachers' beliefs about literacy development were matched in their practices; the itinerant teachers were lifelong learners; the impact of itinerant settings on literacy development took many forms.

In the present article I describe a qualitative, phenomenological case study in which I examined the beliefs and practices of itinerant teachers of deaf and hard of hearing students concerning these students' literacy development. The purposes of this approach, in which I gathered itinerant teachers' stories, were to frame these educators' teaching contexts (Merriam, 1998) and to understand their experiences (Rossman & Rallis, 1998). Multiple case studies were completed for the purposes of developing contextual relevance and contributing to the larger unit of study (Guba & Lincoln, 1982; Yin, 1989).

Five topic areas of the professional

literature helped frame the present study: sociocultural aspects of literacy development, the effects of hearing loss on literacy development, beliefs about teaching and literacy development, practices used to develop literacy, and the impact of the itinerant setting on literacy development for learners who are deaf or hard of hearing.

Literacy development is complex, with many different aspects. One way of viewing it is from a sociocultural perspective, which allows educators' pedagogical goals concerning literacy acquisition to go beyond the formal educational setting to include life outside school and all that that entails for

the purpose of acculturating youth into worldwide and community literacy uses (Moll, Tapia, & Whitmore, 1993; Padden & Ramsey, 1993; Taylor, 1983; Vygotsky, 1978).

Learning environments that involve collaborative work are grounded in sociocultural perspectives and are an area of the literature often discussed in reference to literacy development. Collaborative learning involves groups or communities of learners working together and sharing the responsibility for learning through social interaction (Dewey, 1938; Fleck, 1979; Short & Burke, 1991). Built on social interaction, these communities are formed as

learners come to know each other; value what each has to offer; focus on problem solving and inquiry; share responsibility and control; learn through action, reflection, and demonstrations; and establish a learning atmosphere that is predictable and yet full of real choices. (Short & Pierce, 1990, p. 35)

Through talk with others in collaborative learning communities, people begin to consider new perspectives, slowly revising old ways of thinking as they take the time to reflect on their conversations and constructs.

Hearing loss affects literacy development through the degree of loss, type of loss, age of onset and age of identification, amplification history, and educational history. Many learners who are deaf or hard of hearing have difficulty winning access to the give-and-take of collaborative learning communities because of incomplete auditory signals and challenges relating to language development. One way to assist learners who are deaf or hard of hearing that is described in the literature involves direct instruction to pro-

mote social interaction between these students and hearing peers (Antia, 1985; Antia & Kreimeyer, 1987, 1988, 1997; Stinson & Liu, 1999). In order to truly be part of a classroom community and part of the learning community, learners who are deaf or hard of hearing often must learn the practices necessary to communicate and collaborate with hearing individuals.

The beliefs people hold about their world help them not only to understand events around them but to act on those events. Teachers hold a set of beliefs about learning that are highly subjective and personal. These beliefs vary from teacher to teacher. While these individual beliefs serve as an underlying framework for teaching, Richardson (1994) has found that beliefs go beyond framing classrooms and are closely tied to teachers' practice. Richardson argues that teachers' beliefs guide their actions or practices. Beliefs that teachers hold may pertain to broad areas of the curriculum, or they may apply to more specific areas such as beliefs about literacy development. Teachers hold beliefs about how literacy develops in their students as well as beliefs about how they can help their students develop literacy. Teachers also hold beliefs about service delivery and programming for students. Service delivery refers to how services are provided for each student and ranges from the regular classroom setting with no special assistance to the regular classroom with itinerant assistance to full-time special day schools or residential programs. Programming for learners involves individualization of the curriculum to meet the needs of each learner.

While there is a great deal of overlap among the teaching practices for programming and service delivery, curriculum, and instruction (Klenk & Palincsar, 1996), many of the same el-

ements are seen across all three. Programming and service delivery practices include individualization of program delivery and inclusion. Each child's educational program must be developed based on his or her strengths and needs, which are determined through both informal and formal assessment across time by multiple people. In the professional literature, curriculum is all-inclusive and involves "putting into action a system of beliefs. It is the orchestration of a set of beliefs about learning, knowing, and social relationships" (Short & Burke, 1991, pp. 6-7). Instruction relates to the actual practices used by teachers in the classroom and includes all the materials and activities that are used to put curriculum into practice. Research has shown that there is only one set of effective instructional practices for all learners rather than one set for regular learners and another for learners with special needs (Bunch, 1994).

While it seems that literacy learning alongside same-age hearing peers is an appropriate practice for students who are deaf or hard of hearing, there are two key challenges facing this population: social interaction and language. Researchers have found that there is minimal to nonexistent social interaction between deaf and hearing learners in the same environment. Further, deaf and hard of hearing students in such environments report feeling isolated, lonely, and rejected by their hearing peers (Antia, 1982, 1985; Stinson & Lang, 1994). A second challenge for deaf and hard of hearing students in inclusive settings is gaining access to the language of the classroom and its participants. While deaf learners may have access to the language of the classroom because of the interpreter, they may not have the level of language development necessary to gain

access to the interpreting. For hard of hearing students, gaps in language development may preclude full access to the language of the classroom.

Itinerant services are often used in rural settings, especially with low-incidence handicaps such as hearing loss, because they are convenient and cost-effective (Ilener, 1993). Although a number of studies have examined the use of the itinerant model with learners who have disabilities (Marston, 1996; Marston & Heistad, 1994; Sands, Adams, & Stout, 1995), only two studies have examined the effects of service delivery on the reading achievement of children with special learning needs. Marston and Heistad (1994) studied the gains made in pullout programs versus those made in collaborative inclusive programs for children with special learning needs and found that both models were equally effective in contributing to reading improvement. Marston (1996) examined the effects of inclusion only, combined services, and pullout services on reading progress and found that students in a combined service model made significantly greater progress than students in either an inclusion-only model or a pullout model. Four studies have examined teacher perceptions about itinerant teaching with students who are deaf or hard of hearing: Luckner, 1991a, 1991b; Luckner and Miller, 1994; and Yarger and Luckner, 1999. No research has been done that has examined the beliefs and practices of itinerant teachers of students who are deaf or hard of hearing.

Method

Five itinerant teachers and 15 of their deaf and hard of hearing students were followed in a qualitative, phenomenological case study (Yin, 1989). The study was guided by four research questions:

1. What beliefs about literacy development are held by itinerant teachers of students who are deaf or hard of hearing?
2. What are the teaching practices used by itinerant teachers of students who are deaf or hard of hearing for literacy development?
3. For itinerant teachers, what is the match between teaching practices and beliefs about literacy development?
4. How does the work context of itinerant teachers affect their beliefs and practices concerning literacy development?

The data collected for the present study included four interviews with each of the five itinerant teachers, based on Seidman's interview series (1998); four observations of each teacher, which included compilation of field notes and artifacts; teaching journals written by the teachers; summaries that I completed after the interviews and observations; and my own research journal. During the third interview, a "think aloud" strategy was used in which the teachers, as we watched a videotaped session, discussed what they had done with the student(s) and why.

The data were continuously reduced through careful selection that served to "sharpen, focus, discard, and organize [them]" (Miles & Huberman, 1994, p. 11). Data were read through at least four times, once for each question, and were analyzed for similar phrases, patterns, ideas, and themes concerning beliefs and practices (Marston, 1996). Conclusions were drawn as the study proceeded and were verified by revisiting the data or pursuing meaning through further interviews with the teachers. Trustworthiness was established by gathering evidence

through a variety of sources, triangulating data sources, member-checking with participating teachers to verify understanding, interweaving my own position as an investigator, and peer-mentoring (Lincoln & Guba, 1985; Merriam, 1998).

Four criteria were used to select the teachers. Each had to (a) spend 70% or more of his or her time providing itinerant services and serving two or more elementary schools; (b) provide itinerant services to elementary-age deaf and hard of hearing students in public school programs on either a pullout or in-class basis; (c) have at least 5 years of teaching experience, with 2 or more years spent as an itinerant teacher; and (d) be located within a 150-mile radius of Tucson, AZ.

The present study was set in five school districts in central and southern Arizona: three in large metropolitan areas and two in rural areas. Five itinerant teachers and 15 of their deaf and hard of hearing students participated in the study. Each of the teachers had an M.Ed. in education of the deaf. Experience as a teacher of children who are deaf or hard of hearing ranged from 6 to 24 years; itinerant teaching experience ranged from 4 to 16 years. The number of schools served by the teachers ranged from four to eight; individual caseloads ranged from 8 to 23 students indirectly and directly served. The 15 students in the study ranged from prekindergarten to eighth grade. Hearing losses ranged from mild to profound. Two students had cochlear implants.

Results

Five themes emerged from the data:

- Itinerant teachers used a variety of practices to develop literacy.
- Itinerant teachers played a supporting role in developing literacy.

- Most of the teachers' beliefs about literacy development were matched in their practices.
- The itinerant teachers were life-long learners.
- The impact of itinerant settings on literacy development took many forms.

Practices Used to Develop Literacy

The itinerant teachers used a variety of practices to develop literacy. Each teacher consistently worked from a meaning-centered theoretical framework for developing literacy in their students that was based on consistent beliefs about literacy development. While the teachers were eclectic in their practices, they were not eclectic in their theoretical frameworks.

In order to put her framework and set of beliefs into action, each itinerant teacher had a wide repertoire of prac-

tices that she was able to smoothly and quickly move among in response to student needs. The variety of practices was evident whether the teachers worked with one student or with small groups. It was also evident across groups as these teachers chose practices that were appropriate for students of different ages (e.g., preschool children versus high school seniors). Table 1 provides information on the practices the itinerant teachers were using to develop reading comprehension, reading decoding, and writing and spelling skills.

Each itinerant teacher created an inviting environment for her students. Although the teachers were limited by the amount and size of materials they could carry into a school, the environments they created were rich in language and literacy. The materials used by the itinerant teachers to develop literacy varied widely and included qual-

ity children's literature and student-generated stories. More than three fourths of each observed session was spent in literacy-related activities. The itinerant teachers infused literacy in natural ways throughout the activities they planned and the classroom assignments they were given. Although the itinerant teacher's time with students was limited and accounted for a very small portion of each student's day, the teachers immersed their students in literacy on a regular basis.

The itinerant teachers preferred to work—and often did work—with small groups of students in order to build communities of deaf and hard of hearing and hearing learners. The teachers' ability to work with groups often depended on the needs of the students as well as on the way each district interpreted state and federal laws. Including same-age hearing peers in their sessions was difficult for several of the itinerant teachers because their districts interpreted the laws to mean that they could only include hearing peers in their groups with special parental permission, a step their districts were unwilling to take.

The Supporting Role of Itinerant Teachers

Although at times the itinerant teachers took the primary role in literacy development, their guiding principle was to play a secondary role in developing literacy in their deaf and hard of hearing students. Those itinerant teachers in the present study who adopted a secondary role seemed to be much less frustrated than those who did not take this stance. Three noteworthy findings from the present study relate to and expand upon the findings about itinerant teaching reported in the current professional literature in the areas of curriculum, service delivery, and lesson planning.

Table 1
Itinerant Teachers' Practices to Develop Students' Literacy Skills

Practice	Literacy Skill		
	Reading comprehension	Reading decoding	Writing and spelling
Cloze procedures		X	X
Chunking		X	
Corrections		X	X
Drill		X	X
Editing			X
Experiences	X		
Explanations	X		
Making connections	X	X	X
Peer/teacher help	X	X	X
Pre-reading and preteaching	X	X	
Questioning and discussion	X	X	X
Reinforcement	X	X	X
Reminders	X	X	X
Responses			X
Sequencing	X		
Summarizing and retelling	X		

1 Cloze procedures involve giving a student a word to spell or read with one or more letters missing, for example, The candy is swe_t.

2 In chunking, a practice specific to developing reading decoding, teachers use their fingers or objects such as pencils to break compound words into known words (e.g., break fast).

Though there was no predetermined curriculum for the itinerant teachers, they used the student's individualized education program (IEP), the school district's general education and special education curricula, and the state standards to create their own curricula. They had flexibility in determining how to achieve the goals and deciding which curriculum to follow. The itinerant teachers believed in using "anything that works" while focusing on curriculum based in the real world. This focus led to the tailoring of the curriculum to the needs of each student. Because the itinerant teachers followed no set curriculum, they were able to infuse their goals for each student into classroom work when necessary.

The itinerant teachers preferred using a combination of pullout and in-class service delivery with their students. The teachers stated that this combination best supported their deaf and hard of hearing learners. While the amount of time varied by teacher and student for pullout versus in-class work, all of the teachers were observed working with students using this combination.

Three of the five teachers had adapted lesson planning to meet their own individual needs as well as the needs of the itinerant setting. One effective type of lesson plan included well-delineated activities, with all details clearly explained in writing. These plans were undated and were expected to last several weeks. While interruptions, such as fire drills, might delay achievement of the end result, delineation of the plan helped the teachers work toward the final product. Dated lesson plans were the least effective, as the schedules of the itinerant teachers were often changed.

Match Between Beliefs and Practices

The majority (70%) of the itinerant teachers' beliefs about literacy development were matched in their practices. Several mismatches between beliefs and practices were found. There was no evidence of several beliefs in practice.

One belief about literacy development that was matched in practice was that the process of developing literacy is long and multifaceted and is similar for both hearing learners and deaf and hard of hearing learners, and that itinerant teachers need a broad knowledge of literacy development. The itinerant teachers' belief that the developmental process of literacy is long and multifaceted was matched in their practices, as they used many similar practices, activities, and materials with students of varying ages. For example, Lucy (not her real name) often previewed vocabulary before reading through flashcards, sentence building, and drawing. Complexity of the activity and the expected student response depended on each student's ability. The belief that children who are deaf or hard of hearing develop literacy in very similar ways to hearing children was matched many times in the teachers' practices. The itinerant teachers found that deaf and hard of hearing learners who have a strong language base, whether oral or visual, a multitude of experiences, and exposure to good literature develop literacy much as hearing learners do. The itinerant teachers' belief that with early identification, amplification, and intervention the same practices and materials that work for hearing children will work for deaf and hard of hearing children was also evidenced in their practices. The itinerant teachers' belief that special educators need to have a broad knowledge of literacy development for all

children was matched in their practices. This knowledge base served to assist them in identifying any developmental gaps their students might experience.

Three mismatches between teacher beliefs and practices concerning literacy development were noted: Workshops focusing on normally developing hearing learners were not beneficial to teachers of deaf and hard of hearing students; pullout settings provide an optimal auditory environment; and homework assignments were a source of friction between students and teachers.

Workshops focusing on normally developing students were, in fact, an important influence on the teachers' theoretical framework and were regularly observed during the present study. Mismatches between beliefs and practices concerning literacy development occurred in two areas, causing tension and frustration for the teachers: the need for a quiet environment in which to work with their students, and the importance of homework. The importance of a quiet work environment was a strong belief among the teachers that was not, however, put into practice. But this was, for the most part, out of the teachers' control and was mainly a function of space availability in individual schools. And though the itinerant teachers assigned homework, it was frequently not completed, which caused some friction between teachers and students.

Beliefs about literacy development that were not observed in practice during the present study included exposing learners to environmental print, treating deaf and hard of hearing learners differently, matching American Sign Language and English, making changes in the theoretical framework as student populations and jobs changed, using the school district's

curricula, using a combination of formal and informal assessments, using sustained silent reading, teaching students to ask questions as they read, and adapting classroom materials. Several factors may have prevented these beliefs from being observed in practice: Because I spent such a short time observing the teachers, I was not able to observe all of their beliefs actually being put into practice. Another factor may have been the low incidence of deaf students in these teachers' caseloads, which put limits on the application of practices specifically for deaf and hard of hearing students.

Ongoing Education

Each of the itinerant teachers was a lifelong learner who continued her education through a variety of means. Continuing education was accomplished by taking classes and workshops and by interacting with a variety of students and the professionals who served them. Serving students with a variety of learning challenges in addition to hearing loss added to the itinerant teachers' knowledge base. The teachers reported that they frequently sought to continue their own education based on needs they saw in particular students. Learning from other professionals who served the same students was an additional way the itinerant teachers continued their education. These contacts often led to new knowledge about challenges the itinerant teachers' students faced. This new knowledge was added to their existing base and could be applied with future students. Observation of other teachers was another means used by the itinerant teachers to continue their education. Several of the teachers reported that they knew which teachers they wanted to learn from, and that it was in these teachers' classrooms that they spent most of their observation

time—soaking in the environment and the practices.

Impact of the Itinerant Setting

The itinerant setting itself affects teachers' practices in many ways, in terms of organization, team support, isolation, time, student-teacher ratios, ownership of students and curriculum, and flexibility. Materials and activities used by the itinerant teachers had to be portable, so that they could be carried in and out of each school in one trip. This limited what the itinerant teachers did in their sessions and in turn often changed the kinds of activities done in the itinerant setting. The itinerant teachers were highly organized in terms of materials and activities, using bags and folders for each student, group, or school. The teachers could quickly and easily gather materials for their sessions. They also carefully organized their use of time with students by beginning their sessions the moment they picked up a student from the classroom and ending when they said goodbye. There was no downtime in their sessions, and they stayed on task throughout.

The degree of support from each student's team of educators greatly affected the itinerant teachers' ability to put their beliefs into action. At times, the lack of support from teachers and office personnel who did not understand the needs of the deaf or hard of hearing child and the itinerant teacher was an obstacle. At other times, the variety of personnel the itinerant teacher came in contact with was a positive experience, especially if these individuals shared ideas with the itinerant teacher and kept her informed about student progress. Team support was also evident in the availability of resources. Frequently the teachers had few district funds with which to purchase supplies and had to "beg" them

from their individual schools, a practice that made them uncomfortable.

Isolation was another challenge for the itinerant teachers. Those itinerant teachers who felt removed from other teachers and supervisors often felt alone and misunderstood. The itinerant teachers who were housed together often felt less isolated because they had colleagues with whom to share ideas. However, being in proximity to other itinerant teachers did not solve all of their isolation challenges. They also needed supervisors who would take care of administrative problems in their individual school sites, smoothing the way for them to do their job.

Time was a major issue for the itinerant teachers. The teachers often discussed challenges with time in reference to the consistency with which they were able to work with their students. A lack of time often prevented them from serving students as well as they wanted. This had a major impact on putting practices into action because the teachers often missed sessions with their students due to special events and schedule changes. Time also became an issue when the itinerant teachers were expected to incorporate goals from other specialists who had either left the district or who were unable to work with students for other reasons. This forced the itinerant teachers to put the goals they had developed in the background and to focus on other goals. A lack of time was also problematic in that the teachers often were not able to prepare lessons and find the materials they needed. The teachers found that this lack of time affected their activities by actually changing an activity itself and the duration of the activity.

Student-teacher ratio, ownership of students and curriculum, and flexibility were other factors in the itinerant

setting that affected the itinerant teachers' practices. Although the teachers found it beneficial to work individually or in small groups to attack the gaps in knowledge they found in their students who were deaf or hard of hearing, they also found the lack of group dynamics and same-age peer models to be detrimental to their practices. Ownership of students and programs was most often seen as a positive in that the teachers knew the curriculum being followed in the general education classroom and knew their students' gaps in knowledge. The negative side of ownership was having no control over the literacy environment because the teachers did not know which students they would actually be able to work with, where they would be working with students, or what they would be doing with students. Flexibility had a positive effect on the teachers' practices because they felt that they could create their own curriculum for the most part.

Discussion

Given that it followed only five teachers and 15 students, the present study should be seen as an initial exploration of the beliefs and practices of itinerant teachers of deaf and hard of hearing students in regard to literacy development. However, it is one of the few studies that has systematically examined, through interviews and observations, the beliefs and practices of itinerant teachers of students who are deaf or hard of hearing in regard to developing literacy. While the content of this research was not chosen as representative, it likely mirrors beliefs and practices about literacy development among other itinerant teachers of students who are deaf or hard of hearing.

Several successful methodologies were used in the present study, including application of the researcher's per-

sonal experience as an itinerant teacher, the use of multiple case studies, and combining interviewing and observation. One reason the teachers welcomed me into their lives was because I had been an itinerant teacher myself for 11 years and knew the itinerant experience well. Using multiple case studies was an appropriate approach to examining the beliefs and practices of these teachers as it gave me a better view of itinerant teaching than I would have gotten if I had followed fewer teachers. The combination of interviewing and observing was another positive because the two supported and enhanced one another.

Three potential problems with the present study were found: a previous relationship with two of the itinerant teachers who participated in the study, limited time to observe overall, and collecting teaching journals. I had known two of the teachers prior to the study as interns in my own classroom. These women seemed to continue to view me as their "teacher," and I wondered if this might have influenced their responses at times. Limited time overall to observe was another possible problem. I observed the teachers four times over a 4-to-6-month period. While this was enough time to gather a preliminary view into their itinerant worlds, it was not enough time to gather an in-depth knowledge of itinerant teaching. Collecting teaching journals was a final area of potential problems and proved quite challenging. The itinerant teachers in the study were busy women who had little time to journal with me about their teaching beliefs and practices. Although I received far fewer journals than I had planned to gather, the journals I did receive were rich in information and insights. More than any other data source, the teaching journals opened windows for me into

the itinerant experience.

Practices Used to Develop Literacy

Although the theoretical framework and the practices used to develop literacy by the itinerant teachers in the present study are described in professional literature focusing on both hearing and deaf and hard of hearing learners, the framework and practices are not discussed in terms of itinerant teaching. The itinerant teachers' meaning-centered models for developing literacy were similar to those discussed by K. S. Goodman and Y. M. Goodman (1977) and Smith (1978) for hearing learners, and the teachers' ability to infuse literacy in natural ways throughout activities was much like that discussed by K. Goodman (1986), Y. Goodman (1996), Heshusius (1991), and Watson (1989), who have found that students must be actively engaged in reading and writing activities infused throughout their academic day if they are to develop literacy. The itinerant teachers' practice of building communities of learners through work with small groups of students was very much along the lines of what Dewey (1938) and Short and Burke (1991) have suggested in regard to hearing learners. Antia and Kreimeyer (1987, 1988, 1997) and Stinson and Liu (1999) have suggested building similar communities of learners with students who are deaf or hard of hearing.

The itinerant teachers in the present study used a variety of comprehension, decoding, writing, and spelling practices to develop literacy in their deaf and hard of hearing students. Helping students make connections to their past experiences and prior knowledge were other frequently observed practices. Berk and Winsler (1995), Bodrova and Leong (1996),

and Vygotsky (1978) have focused on the need to activate prior knowledge in hearing learners, much as Jackson, Paul, and Smith (1997) and Livingston (1997) have focused on learners who are deaf or hard of hearing. The teachers in the present study included pre-reading, preteaching, explaining, and summarizing in their lessons, practices that Mastropieri and Scruggs (1997) have found effective for students with learning disabilities and that Livingston reports on in regard to students who are deaf or hard of hearing. Decoding practices used by the itinerant teachers included correction and drill, methods that were much like the decoding practices described in Pressley and Woloshyn's work (1995). The teachers also used drawing to develop writing skills, much as teachers of students who were deaf or hard of hearing did in studies by Andrews and Gonzales (1991) and Williams (1993, 1994). The itinerant teachers also used journaling with their students. Fulwiler (1987) has written extensively about developing writing skills through journal writing with hearing students.

The fact that the literacy development practices used by the itinerant teachers in the present study are also described in the professional literature on both hearing and deaf and hard of hearing learners supports Bunch's finding (1994) that there is one set of effective teaching practice for all learners. Based on the present study, there does not appear to be one set of practices for hearing learners and another set for learners who are deaf or hard of hearing. While practices to develop literacy may be used with both hearing and deaf and hard of hearing learners, those with hearing loss may require extra experience with various practices.

The need for itinerant teachers to have a wide repertoire of practices has

implications for preservice programs for educators of students with hearing loss. Preservice programs for such educators need to provide a variety of course work focusing on literacy development in hearing and deaf and hard of hearing learners that gives teachers of students with hearing loss a solid theoretical framework. Discussing theories of literacy development was not a strength of the itinerant teachers in the present study. While they had a basic understanding of theoretical models, they weren't always able to articulate their understanding well. Course work also needs to provide knowledge of different service delivery models, including itinerant pullout and in-class work. This is especially important, given that the majority of the jobs in the field are itinerant because many students who are deaf or hard of hearing are being served in their home schools ("Annual Survey of Deaf and Hard of Hearing Children and Youth," 2000). Course work in the content areas is also important for itinerant teachers, as they need to know content in order to infuse individual goals into each area.

The Supporting Role of Itinerant Teachers

The finding that itinerant teachers of students who are deaf or hard of hearing take supporting roles in developing literacy supports reports in the professional literature about the roles of special educators and itinerant teachers of these students. Flener (1993) reports that the classroom teacher is the one primarily responsible for the curriculum. Luckner (1991a, 1991b) and Luckner and Miller (1994) studied the itinerant model for learners who are deaf or hard of hearing and found that teachers in itinerant positions served their students in supporting roles.

The itinerant teachers in the present study did not have a set curriculum to follow and thus were able to incorporate a variety of curricula into their sessions, much like the special educators studied by Sands et al. (1995), and were better able to use their professional judgment to match their beliefs to practice. This in turn led to individualization of the curriculum and instruction that met the needs of the learner. The itinerant teachers used a combination of pullout and in-class service for their students, much as the special educators in Marston's study (1996) reported. The finding that the itinerant teachers in the present study believed that they should use "anything that works" is similar to findings that have been reported in the professional literature focusing on hearing learners (K. S. Goodman et al., 1989; Harste, Woodward, & Burke, 1984; Routman, 1988; Short & Pierce, 1990).

The supporting role taken by itinerant teachers in developing literacy has implications for preservice programs and school districts. Itinerant teachers will need to have a complete knowledge of and access to the curriculum being followed by the classroom and school district. The individualization of curriculum will need to be a focus for both the preservice program and the school district. Teachers of students who are deaf or hard of hearing may need assistance in determining appropriate curricula to follow and where the IEP fits into the general education curriculum.

Match Between Beliefs and Practices

The strong match between the beliefs and practices of the itinerant teachers in the present study has not been reported in the professional literature for students in special education or

deaf and hard of hearing programs. This is an important finding because of the nature of itinerant positions. The teachers in the present study were able to make their beliefs work in an itinerant setting, something that few professionals in the field thought was possible.

Many of the matching beliefs and practices reported in the present study are also reported in the professional literature. The itinerant teachers' belief that children who are deaf or hard of hearing develop literacy in similar ways to hearing children is supported in reports on hearing children by Clay (1975), DeFord (1980), Heath (1983), and Taylor (1983), and in the reports on deaf and hard of hearing learners by Ewoldt (1978, 1985), Maxwell (1984), Ruiz (1995), and Williams (1993, 1994). The itinerant teachers reported that with early identification, amplification, and intervention, the same methods and materials that work for hearing children also work for learners who are deaf or hard of hearing. Yoshinaga-Itano (1999) has reported similar findings with deaf and hard of hearing learners. The itinerant teachers' belief—and matching practice—that literacy development is a long and multifaceted process calls to mind the findings of Taylor (1983) and Taylor and Dorsey-Gaines (1988), who studied hearing learners and their families, and those of Maxwell (1980, 1984), who studied a deaf learner and her family. The itinerant teachers practiced the belief that special educators need to have a broad knowledge of literacy development for all children. This finding is similar to those reported by Yarger and Luckner (1999), who followed a group of itinerant teachers of students who were deaf or hard of hearing. The belief and matching practice of the itinerant teachers in the present study in regard

to combining pullout and in-class work to best meet the needs of deaf and hard of hearing students is much like what was reported in Marston's study (1996), which found that a combination of pullout and in-class services was best for developing literacy in students with learning disabilities. The present study's finding about the itinerant teachers' belief and practice concerning the IEP as an important curricular decision maker is similar to findings reported by Sands and colleagues (1995), who determined that the IEP was a primary source of curriculum for special educators. The itinerant teachers' belief and practice concerning the use of read-alouds, shared reading, and dramatization to develop reading comprehension and decoding call to mind practices discussed in the professional literature on hearing learners (Pressley & Woloshyn, 1995; Routman, 1988, 1991; Short & Burke, 1991).

The match between beliefs and practices reported in the present study has implications for state and federal laws, preservice programs, and school districts. Changes must be made at the state and federal level that will allow IEPs to be written in a manner that guides instruction, rather than simply to meet state and federal mandates. Such changes will allow IEPs to serve as the curriculum and the doorway into the general education curriculum. Preservice programs and school districts must support and embrace such changes.

Ongoing Education

Each itinerant teacher in the present study was a lifelong learner continuing her education and adding to her theoretical framework for literacy development literacy through a variety of classes, workshops, in-services, and on-the-job training. This finding

points to the social nature of learning as discussed by Dewey (1938) and Vygotsky (1978) and is supported in the work of Richardson (1994), who found that regular education teachers obtained their theoretical frameworks for literacy development through a variety of classes, workshops, and on-the-job training.

Teachers of deaf and hard of hearing students who are in the itinerant setting may only gain a basic knowledge about literacy development and practice during their undergraduate and graduate work. In order to be truly effective in the itinerant setting, they must continue their education and examine and assess their teaching practices on a regular basis.

Impact of the Itinerant Setting

Impacts of the itinerant setting as reported by the teachers in the present study fall into two categories: challenges and positives. The lack of support from teachers and office personnel, isolation, lack of resources to use with students, and a lack of time were challenges for teachers in the present study much as they were for those teachers who participated in Yarger and Luckner's study (1999). Positives for the itinerant teachers that were directly related to the itinerant setting included flexibility in the curricula and materials used with students as well as the autonomy of an itinerant position. These were also identified as positives by the teachers by Yarger and Luckner.

Implications for itinerant teachers that arise from the impacts of the itinerant setting include the need to advocate for students and oneself and to build collaborative peer relationships. In public schools, there are few people who understand the impact of hearing loss. Thus, it becomes the responsibility of the itinerant teacher to educate the classroom teachers and building

personnel about the importance of quiet places in which to work with students who are deaf or hard of hearing. Office and storage spaces, and appropriate limits in terms of the number of service hours per itinerant teacher, often need to be "fought for" by the individual itinerant teacher. Time for planning and time for lunch are often removed from an itinerant's schedule when new students are placed in the program. This is an inequitable practice because it is during these times that other teachers are able to plan and collaborate with one another. If itinerant teachers are working with students instead, they cannot become full members of the team. Without this collaboration, itinerant teachers often become isolated and burn out quickly. School districts and teacher preparation programs can support itinerant teachers through workshops and other professional experiences and opportunities that will familiarize these teachers with advocacy and collaboration and enable them to put these skills into practice.

Conclusion

The itinerant model is a form of service delivery that is becoming more common as more deaf and hard of hearing learners are served by their local school district. Thus, it is important that the field examine what is being done and what works with students who are deaf or hard of hearing in all areas of the curriculum. The research I report in the present article is only one study focusing on literacy development, and begins the discussion of the practices used by itinerant teachers. Short- and long-term studies need to be completed to expand understanding of literacy development in the itinerant setting, including further study of beliefs and practices about the development of reading compre-

hension, decoding, writing, and literacy assessment. Studies that focus on beliefs and practices for developing student knowledge in the content areas, social interaction, and language development should also be completed. These studies will need to follow a wide variety of students of different ages with a range of hearing loss.

The itinerant setting is a challenging one that may not be appropriate for serving students who are deaf or hard of hearing. If appropriate space to work with students and store materials as well as accessibility to materials cannot be provided by school districts and supervisors, perhaps this is not a service delivery model that should be used with such students. However, as inappropriate as the environment may be, the itinerant teachers who participated in the present study do a tremendous job with their students, as shown by the progress their students are making. Because the itinerant teachers play an important part in this achievement, ways must be found to lessen the impact of the itinerant setting. It will be important to continue research into the itinerant service delivery model with students who are deaf or hard of hearing. Does the combination of in-class and pullout service best meet the needs of such learners who are developing literacy? Is there a difference according to age or level of hearing loss? Can the findings in the present study be generalized to all students who are deaf or hard of hearing in public school settings who are served by itinerant teachers, or do they apply only to the students in the present study? Both short-term and long-term studies of teachers in itinerant settings must be completed to provide a well-rounded picture of the itinerant service delivery model for students who are deaf or

hard of hearing. Studies will need to focus on a wide age range of students who have varying degrees of hearing loss.

Itinerant teachers do so much more than mere tutorial work with their students. Instead, they use a variety of practices to develop literacy in these students. I didn't realize that so many practices could be adapted effectively to the itinerant setting. That the itinerant teachers were able to put their beliefs into practice even in an itinerant setting gives me a renewed sense of hope for the itinerant model. My eyes have been opened wide by these itinerant teachers. I see through them that all things are possible for an itinerant teacher.

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